A NEW SPECIES OF MOLLUSK FROM THE SAN PEDRO PLEISTOCENE

By G. Willett

On several occasions during the past two or three years Mrs. Effie M. Clark of Los Angeles, has brought me specimens of an interesting shell obtained by her in the Lower San Pedro fauna at Hill-top Quarry, San Pedro, California. Some time after she had brought me the first specimens, I obtained two imperfect examples of the same species in the Lower San Pedro series at Timms Point, also in San Pedro. There are also three imperfect specimens at hand taken by E. V. Edmonds at Hill-top Quarry. In spite of the fact that this shell is very much larger than any known species of west American *Alabina,* in the absence of soft parts, it appears to me best referable to that genus. Therefore, it may be known as:

Alabina effiae sp. nov. Pl. 54.

Shell elongate-conic, white. Nuclear whorls 2, globular, smooth and shining. Post-nuclear whorls well rounded; sutures deep. Early post-nuclear whorls apparently smooth; later ones with very obscure, raised, irregularly spaced spiral lines, visible only under a lens, and varying in strength in the different specimens examined. Base of last whorl rounded and somewhat wrinkled at the columella. Imperforate. Aperture broadly ovate, without trace of canal; outer lip thin, slightly reflected. Columella strongly curved; parietal wall apparently not calloused.

The type (No. 1061, Los Angeles Museum) was collected by Mrs. Effie M. Clark, in the Lower San Pedro series, Hill-top Quarry, San Pedro, California. It has 2 nuclear and 7 post-nuclear whorls, and measures: Length, 12 mm.; diameter, 4.5 mm. The largest specimen (imperfect), if restored, would have 9 post-nuclear whorls and would measure 18 by 7.5 mm. Mrs.

PLATE 54

Alabina effiae Willett
Type, x 3

Clark and Mr. E. V. Edmonds each have three additional specimens from the type locality, and the Los Angeles Museum has two from the Timms Point formation.

The species is named for Mrs. Effie M. Clark, who brought in the first specimens, and whose diligent and careful work in the fossil deposits of the San Pedro area has resulted in many interesting additions to our knowledge of the shells of that region.

A PROPOSED DICHOTOMY OF THE SNAIL-GENUS MONADENIA

By S. Stillman Berry
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In the course of my studies on the anatomy of certain of our western land-snails it early became evident that the species of the splendid genus *Monadenia* (Pilsbry) so far as investigated align themselves in two very distinct and apparently natural groups. These groups find their strongest characterization in the genitalia, but it has likewise been possible to discover support for them in certain features of the shell. For several years I have been putting off publication of my conclusions in the hope of fortifying them by an investigation of the animals of all or nearly all of the known species. This has as yet been only possible of attainment in part, but since no conflicting evidence has come to light in any of the species studied, and as I wish the privilege of reference to the situation in a taxonomic and distributional paper shortly to appear, it seems desirable to publish this preliminary synopsis.

Genus Monadenia (Pilsbry, 1895:199)
(Type: *Helix fidelis* Gray, 1834:67)

♂ apparatus with large sacculate dart-sac opening into an enormous complex atrium, the single large elongate mucus-gland entering asymmetrically in the angle proximad to the dart-sac; penis very short and stout, containing a verge; epiphallus stout, terminating posteriorly in a very conspicuous "flagellum"[1]; penial retractor entering on the epiphallus.

Adult shell rounded-helicoid to carinate, with varying spiral sculpture and rounded or hyphen-shaped granulation. Embryonic shell always carinate, its surface very closely and finely granulate.

[1] The use of the term "flagellum" for the free appendix of the epiphallus is supported by weighty authority; yet it is open to the serious objection that there exists in biology a very different, much more strongly established, and very much more appropriate morphological meaning to the word. For this reason and because the organ in many of its manifestations is far from flagelliform, some such term as, e.g., epiphallic caecum, would be altogether preferable.